

920673-907236

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of : **Thomas Moran**
Serial No. : **09/585,669**
Filed : **June 1, 2000**
For : **Conferencing systems with enhanced capabilities**
Examiner : **MILLS, Donald L.**
Art Unit : **2616**
Customer No. : **23644**

BRIEF ON APPEAL

Honorable Director of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Appeal is from the Examiner's final Office Action dated May 30, 2007 in which claims 35-65 of this application were finally rejected. A Notice of Appeal was filed July 12, 2007.

The fee of \$500.00 pursuant to 37 C.F.R. §41.20(b)(2) for this brief should be deducted from Deposit Account No. 12-0913.

(i) REAL PARTY IN INTEREST

The Assignee, Nortel Networks Limited, is the real party in interest in the pending appeal.

(ii) RELATED APPEALS AND INTERFERENCES

Applicant is unaware of any other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(iii) STATUS OF CLAIMS

Claims 35-65 are pending in the Application, claims 1-34 having been cancelled and replaced by these claims. Claims 35-65 are finally rejected, and are the claims that are being appealed.

Claims 35-65 are set forth in the Claims Appendix.

(iv) STATUS OF AMENDMENTS

No claim amendments have been filed subsequent to the final rejection dated May 30, 2007.

(v) SUMMARY OF CLAIMED SUBJECT MATTER

The invention is used in the field of conferencing systems, allowing for the organization of subconferences between members of a conference.

Independent Claim 35

Independent claim 35 relates to a conferencing method (page 4, line 3) whereby different members of a main conference can set up a subconference private to said main conference, the method comprising the steps of:

- a) forming a main conference between a plurality of users (this can be seen in Fig. 1; page 16, lines 14-28; and page 20, lines 1-23),

- b) presenting at least one of said users in the main conference with a graphical list of the main conference participants (Fig. 5A; page 16, lines 14-19; and page 24, lines 11-17),
- c) providing said user with an interface to interact with said graphical list of main conference participants, such that said user has an option to request a subconference with a subset of other users by selecting subconference participants from said graphical list using said interface (Fig. 5A; and page 24, lines 19-24),
- d) forming a subconference between said user and the subset of other users (Fig. 4; and page 25, lines 14-28),
- e) maintaining private from the main conference at least some communication between the subset of users in the subconference during the subsistence of the subconference (Fig. 5D; page 5, lines 25-28; and page 25, lines 8-10), and
- f) presenting to said user a graphical list of the subset of users in the subconference, when the subconference is in progress (page 7, lines 1-10; and page 24, lines 5-7).

Briefly, therefore, the method of claim 35 relies on the provision of a graphical list to a member of a conference (the user), the list operable to display a list of the participants in the conference. If the user wishes to initiate a subconference with other conference participants, the user can select those conference participants using an interface provided to said user.

The method then creates a subconference between the user and the other subconference members, with some portion of the communication in the subconference kept private from the main conference.

The method is also operable to maintain and present to the user a graphical list of the members of the subconference.

The use of this method allows for private subconferences to be easily set up and configured within a larger conference setting.

Claim 36

Dependent claim 36 is directed towards the feature whereby the participants in the subconference are completely separated from participating in the main conference, while the subconference is in session (Fig. 5D; page 6, lines 13-15; and page 25, lines 1-10).

Claim 37

Dependent claim 37 is directed towards the feature whereby the participants in the subconference can monitor the proceedings in the main conference, but are unable to contribute to the main conference, while the subconference is in session (Fig. 5D; page 6, lines 7-11; and page 25, lines 1-10).

Claim 38

Dependent claim 38 relates to the situation where a number of different types of communications media may be used in the main conference, with the members of the subconference using one or more of these media types in the subconference. The members of the subconference can then participate in the main conference (either actively or passively) using at least one media type during the length of the subconference (Figs. 4, 5C and 5D; page 4, line 32 to page 6, line 11; and page 22, lines 9-27).

Claim 42

Dependent claim 42 covers where the members of the main conference are presented with a list of the subconference participants during the length of the subconference (page 7, lines 1-10).

Claim 44

Dependent claim 44 is directed towards the creation of the subconference on a conference bridge that each of the conference members is connected to (page 12, lines 7-13).

Claim 46

Dependent claim 46 relates to how the conference members that the initial user wishes to hold a subconference with have the option of accepting or refusing the request for a subconference. Depending on their response, the conference members in question can then be either included in the created subconference, or not (Fig. 5E; page 11, lines 20-26; page 25, lines 14-28)

Claim 47

Dependent claim 47 covers the situation where members of a subconference have the option of leaving the subconference at any time during the length of the subconference (page 7, lines 26-30).

Claim 49

Dependent claim 49 is directed towards the recursive aspect of the invention, whereby subconferences can be created within subconferences (page 7, line 32 to page 8, line 5). An example of where this may occur is given on page 8, lines 5-13, where in a conference between representative of two companies, a subconference may occur between the individual representatives of one company. A “nested” subconference may then take place within this subconference, between the senior representatives of the company – possibly for private decision-making.

Claim 50

Dependent claim 50 relates to the situation whereby a member of a subconference can initiate a new subconference with other members of the subconference without rejoining the main conference (page 8, lines 15-19).

Independent Claim 51

Independent claim 51 is effectively an apparatus claim essentially equivalent to method claim 35, and covers a conferencing server (shown in Figs. 1 and 2; page 18, line 19 to page 19, line 3; page 26, lines 4-21), comprising:

- i) a main conference list memory unit for maintaining a main list of the users connected to the server as part of a conference (page 18, lines 24-29; page 23, lines 23-28),
- ii) a main conference list manager for forwarding said main list of users to an endpoint of at least one of said users whereby said endpoint can graphically display said main list to said user (page 11, lines 7-12),
- iii) main signal processing means for receiving incoming signals from said users, processing said signals and generating outgoing signals to said users (page 10, line 10 to page 11, line 5; page 18, lines 24-27; page 20, lines 12-30; page 26, lines 9-21),
- iv) a main control unit for controlling said main conference list memory unit and said main signal processing means (page 18, lines 24-29; page 26, lines 4-6),
- iv) a subconference list memory unit for maintaining a subconference list of a subset of said users, said subset being defined in response to subconference requests made by said user by interaction with said main list at said endpoint (page 11, lines 28-32; page 26, lines 9-15),
- vi) a subconference list manager for forwarding said subconference list of users to said endpoint of said at least one user whereby said endpoint can graphically display said subconference list to said user (page 11, lines 28-32; page 24, lines 5-9),
- vii) subconference signal processing means for generating outgoing signals to said subset of users, wherein the signals generated by said

subconference signal processing means include subconference signals which are not included in the signals generated by said main signal processing means and sent to users outside said subset (page 10, line 31 to page 11, line 5; page 23, lines 13-21; page 26, lines 15-21), and

- viii) a subconference control unit for controlling said subconference list memory unit and said subconference signal processing means (page 26, lines 4-6).

Claim 56

Dependent claim 56 is directed towards how the signal processing unit may generate outgoing signal streams to the users dependent on the communication media types being employed (page 13, line 29 to page 14, line 2; page 20, lines 12-17; page 23, lines 13-21).

Claim 57

Dependent claim 57 covers a server wherein the main control unit is operable to present a list of conference participants to each of the participants (Fig. 5A; page 6, lines 23-31; page 11, lines 7-10; page 24, lines 11-17)

Claim 58

Dependent claim 58 covers a server wherein the subconference control unit is operable to forward a list of subconference participants to the members of the subconference, and optionally to the members of the main conference (page 7, lines 1-8; page 11, lines 28-32)

Independent Claim 59

Claim 59 is directed towards a conferencing system employing the conferencing server as previously claimed, as well as an appropriate call server and means for connecting users to the call server (Figs. 1 and 2; page 15, lines 27-30).

Independent Claim 60

Independent claim 60 relates to a computer program product comprising software recorded on a computer-readable medium for managing a conference (page 12, line 22 to page 13, line 19), said software comprising instructions which when executed in a conferencing system are effective to cause the system to:

- form a main conference between a plurality of users (page 13, lines 12-14),
present at least one of said users in the main conference with a graphical list of the main conference participants (page 13, lines 23-24),

- provide said user with an interface to interact with said graphical list of main conference participants, such that said user has an option to request a subconference with a subset of other users by selecting subconference participants from said graphical list using said interface (page 13, lines 14-15 and 24-27),

- form a subconference between said user and the subset of other users (page 13, lines 16-17),

- maintain private from the main conference at least some communication between the subset of users in the subconference during the subsistence of the subconference (page 13, lines 17-19), and

- present to said user a graphical list of the subset of users in the subconference, when the subconference is in progress (page 11, lines 28-32).

Independent Claim 62

Independent claim 62 is directed towards a computer program product comprising software recorded on a computer-readable medium for enabling a user at a multimedia terminal to participate in a conference over a network (page 13, lines 21-27), said software comprising instructions which when executed in said terminal are effective to cause the terminal to:

- present to said user a graphical list of participants in the conference (page 13, lines 23-34),

- provide said user with an interface to interact with said graphical list of conference participants, such that said user has an option to request a subconference with a subset of other users by selecting subconference participants from said graphical list using said interface (Fig. 5A; and page 13, lines 24-25),

- forward said request over the network from said terminal (page 13, lines 25-27), and

on initiation of a subconference with one or more of said subset of users, present to said user a graphical list of the subset of users in the subconference, when the subconference is in progress (Fig. 5A; and page 24, lines 5-9).

(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

There are 3 grounds of rejection to be reviewed:

- 1) The rejection of claims 35-42, 43-51, 58 and 60-65 as being unpatentable under 35 U.S.C. 103 over Beyda et al. (US 6,404,873).
- 2) The rejection of claims 52-55, 57 and 59 as being unpatentable under 35 U.S.C. 103 over Beyda et al. in view of Hamilton (US 6,757,259).
- 3) The rejection of claim 56 as being unpatentable under 35 U.S.C. 103 over Beyda et al. in view of Hamilton, in further view of Theimer et al (US 5,812,865).

(vii) ARGUMENT

Ground 1) Rejection under 35 U.S.C. 103 over Beyda et al.

Claims 35, 51, 60 and 62

Brief summary of prior art reference

For the benefit of the Board, a brief summary of the Beyda disclosure may place its relevance to the present invention in proper context as it would appear to the person skilled in the art.

Beyda

Beyda is concerned with establishing and managing subconference calls within a main conference call. A first terminal in a conference call sends a request to a subconference manager (subconference call subsystem 30), which forwards the request to a second terminal with which it is desired to hold a subconference. Upon detecting acceptance of said request by the second terminal, the subconference call subsystem establishes a subconference between the terminals, mixing the voice data transmitted between the first and second terminals with the voice data from the main conference. This mixed audio signal is then transmitted to the first and second terminals of the subconference. The voice data of the first and second terminals is not transmitted to the other terminals participating in the main conference that are not members of the subconference.

Detailed analysis of Beyda's shortcomings as a reference

The Examiner has previously argued that certain features of the present invention are inherently or implicitly disclosed in Beyda, but Applicant has previously argued that certain features are not inherent, namely:

- (i) presenting a graphical list of main conference participants;
- (ii) providing a user with an interface to allow selection of subconference participants from the graphical list; and
- (iii) presenting a graphical list of the subset of users in the subconference, when the subconference is in progress.

The Examiner concedes that Beyda does not disclose *“presenting at least one of said users in the main conference with a graphical list of the main conference participants”*. However, the Applicant asserts that Beyda also does not disclose either of features (ii) or (iii).

(i) Presenting A Graphical List Of Main Conference Participants

Beyda allegedly implies disclosure of *“presenting at least one of said users in the main conference with a [graphical] list of main conference participants.”*

Leaving aside the “graphical” limitation for the moment, the Examiner also alleges that *“referring to Figures 1 and 2, the a [sic] list of users is presented to an user in order for them to determine an appropriate subconference participant. See column 5, lines 31-41”*. Also, in the response to the last set of arguments submitted by the Applicants, the Examiner alleges that this claim clause is implicitly disclosed by Beyda as follows: *“Beyda implies a list of users is presented to a user in order for them to determine an appropriate subconference participant. See column 5, lines 31-41”*. Applicant fails to see how this conclusion can be drawn from Figures 1 and 2 and of column 5, lines 31-41:

Figure 1 is a schematic diagram of a communications network. It contains no disclosure of a list being presented to anybody.

Fig. 2 is a block diagram of the functional components of a system for managing subconference calls. It shows a subconference call request being made and accepted, and shows voice data being distributed to conference and subconference participants. There is no disclosure of a list being presented to anybody.

Column 5, lines 31-41 relate to Fig. 3 and describe the mixing of voice data within a main conference. There is no mention or suggestion of presenting a list to anybody.

Clearly, therefore, the cited passage from Beyda does not teach, implicitly or otherwise, presenting a list of main conference participants to one of the users in the main conference.

The Examiner had previously argued that feature (i) must be present because “otherwise it would be impossible to establish a discrete subconference call within the context of the main conference since the identities of the other participants would be unknown”, and “one wishing to establish a subconference call would be unaware of whom to send a subconference call request.”

Applicant has previously directed attention to the extremely stringent standard required to show inherency (i.e. that the feature must **necessarily** be present), and Applicant has noted the Examiner’s belief that without a graphical list of participants it would (in the opinion of the Examiner) “be impossible to establish a discrete subconference call”. This is the crux of the matter under consideration. If establishing a subconference is in fact possible without a graphical interface, then feature (i) could no longer be considered to be inherent.

Beyda lists on its front page a small number of prior art references, some of which disclose subconference systems. One of these references is US 5,483,588 to Eaton et al. (a reference of record), which discloses a system which accomplishes a range of diverse and sophisticated conferencing tasks, including subconferencing, without any graphical interface. Users log into a conference and recorded announcements are used to signal the attendees in the conference. The attendees communicate with the conference system using DTMF tones on their handsets. Column 11, lines 16-35 describes how a subconference can be set up in this manner, without any necessity for a graphical interface. While this does not disclose requests being sent from one terminal to another, it would be a trivial matter to implement this by assigning each user an ID number (01, 02, etc.) which is announced when the user enters or during the roll call, and allowing a first user to issue a request to another using the ID number system via DTMF. Accordingly without straying any further from Beyda than the prior art cited by the USPTO, Eaton disproves the contention of the Examiner that it is impossible to arrange subconferences without utilizing graphical lists.

More fundamentally, the public switched telephone networks have provided a mechanism for one terminal to issue requests to another terminal for decades, long before the advent of graphical interfaces. Any telephone subscriber can dial any publicly available number without resorting to a graphical interface. Accordingly, simply by dialling a number, any terminal can issue requests to any other terminal on the network, and the same type of addressing is clearly available in any telephony system: to issue a request to a conference participant, one need only arrange for a subconference command followed by the number of the desired participant.

Beyda clearly states that the terminals can be either telephones or computing devices with telephony capabilities. Clearly if the presentation of graphical lists of main conference participants was necessary for Beyda's system to work, telephones (which do not conventionally have the necessary graphical display capabilities) would not be appropriate.

It is well known that users can arrange telephone calls without having a graphical list of potential participants, simply by dialling telephone numbers or internal extension numbers or by hitting assigned speed-dial keys.

Similarly, to arrange a conference call, it is not required that the potential conference participants be presented as a graphical list from which they are selected to initiate the conference.

For the same reasons, when a conference is in progress, all that Beyda teaches is that a request is sent to the conference participants with whom a subconference is desired. This could be done in many ways, including using the keypad to identify the participants' telephone number or extension number, or by selecting buttons assigned to the incoming lines for the individuals. There is no necessity that a graphical list be presented and thus the allegation of inherency cannot be justified.

It is clearly possible, therefore, to arrange subconferences without employing graphical interfaces, and thus the contention of the Examiner that this is "impossible" is simply incorrect. It has been demonstrated above that there is clear teaching in the prior art of systems which do not require any graphical listing of conference

participants but which can be used for sophisticated conferencing purposes. Given the very real possibility of Beyda operating without any such graphical listing of the main conference participants, and in the complete absence of any disclosure of an interface for selecting participants for the subconference, the required certainty for a showing of inherency is lacking.

The Examiner has alleged that the above reasoning is “an unreasonable interpretation” of the prior art, as it involves “*ignoring necessary fundamental processes, which would render the system inoperable*”. However, the Applicant believes that the arguments presented above are not sufficiently dealt with by the Examiner, as an interpretation of Beyda is offered that shows that the presentation of a graphical user list to conference participants is mostly clearly not a **necessary** component of the working of Beyda.

The Applicant therefore asserts that presenting a graphical list of main conference participants is not disclosed, implicitly or otherwise, in Beyda.

(ii) Providing A User With An Interface To Allow Selection Of Subconference Participants From The Graphical List

Regarding feature (ii), claim 35 specifies “providing said user with an interface to interact with said graphical list of main conference participants, such that said user has an option to request a subconference with a subset of other users by selecting subconference participants from said graphical list using said interface”.

In relation to this feature the Examiner has made reference to Figure 1 of Beyda, with the comment that “first terminal 14 transmits a subconference call request 28 to the sixth terminal 24, based on the known list of participants”.

It is not disputed that first terminal 14 of Beyda transmits such a subconference call request. However, the reasoning provided is entirely silent on where there is a disclosure, implicit or otherwise, of a user interface allowing selection from a graphical list. Simply because a user sends a request from one terminal to another does not mean that the user must have selected the other user from a graphical list using an interface designed for this purpose.

It is respectfully pointed out that all that is required for first terminal 14 to transmit a request to sixth terminal 24 is a valid network connection. The terminals do not need to know of one another's existence to transmit this request.

Furthermore, the claimed invention requires that the user can interact with a list of conference participants and can select members of this list for a subconference. Nothing in the material cited by the Examiner discloses, explicitly or inherently, such a capability.

(iii) Presenting A Graphical List of the Subset of Users in the Subconference,
When The Subconference Is In Progress

In relation to feature (iii), the Examiner has stated that "the list of the subset of users in the subconference is present during the text messaging between the initiator and the intended recipient during the subconference".

It is agreed that the subconference system must inherently maintain a record of the subconference terminals in order to achieve the appropriate audio signal mixing. This of course has no bearing on whether that information is ever displayed to anyone. Beyda never mentions or suggest displaying the information to any of the users.

The Examiner cites column 4, line 66 to column 5, line 3 as the basis for his rejection. However, the Applicant asserts that this passage refers only to the mixing of voice signals in the subconference with the voice signals of the main conference – there is no disclosure, implicit or otherwise, of presenting a graphical list.

The Examiner has previously argued that feature (iii) must be present because when a subconference is in session the video and digital data is presented to the users as described at column 5, lines 22-26. The passage referred to simply says that whiteboard data from the main conference and subconference can be mixed, with the different data in different colors. There is no suggestion of a graphical list of the subconference participants or of the main conference participants in this passage and all that is disclosed is that the data from each conference are distinguished by color coding.

To take a very close analogy, when one makes a telephone call using a cellphone, the cellular network “inherently knows” which cell a user is located in. It must know this for the system to work. This does not mean that that information is ever presented to the user, and in fact it is not. Thus, information which the subsystem of Beyda must know about is not in fact ever presented to the user, and the entire disclosure gives no reason at all to suppose that presentation of this information is desirable or necessary.

Claim 36

The Examiner cites column 4, line 66 to column 5, line 3 of Beyda in his rejection of claim 36. However, these passages do not disclose a situation wherein the subconference participants are entirely isolated from participation in the main conference. Indeed, referring to column 5, lines 3-6, Beyda discloses where the voice signals for the subconference are mixed with the voice data of the main conference proceedings, resulting in a situation where the participants of the subconference can monitor the voice data of the main conference – i.e. the subconference participants are not entirely isolated from the main conference. This is in contrast to the present claim 36, that allows sub-conference participants to be completely isolated from the main conference (see Fig. 5D, and the option to have no communication from the main conference).

Claims 42 and 58

The Examiner concedes that Beyda does not disclose “*wherein the users in the main conference are presented with said subconference list during the subsistence of the subconference*”. However, the Examiner alleges that it would be obvious from the disclosure of column 2, lines 2-5 to provide a list of subconference users during the subconference.

The passage cited in Beyda refers to when a party has been dropped from the conference call, that a coordinator of the conference may receive notification that a party has left the conference. The Applicant asserts that this may be accomplished through a simple audio indication that a party has left the conference, and in no way makes obvious the presentation of a list of subconference proceedings to the members of the main conference.

**GROUND 2) REJECTION UNDER 35 U.S.C. 103(A) OVER BEYDA ET AL. IN
VIEW OF HAMILTON**

Claims 52-55, 57 and 59

Claims 52-55, 57 and 59 are dependent on claim 51, and as such they each benefit from patentability for the same reasons as the base claim from which they depend. Accordingly, it is submitted that Hamilton fails to make obvious the subject matter of claims 52-55, 57 and 59.

**GROUND 3) REJECTION UNDER 35 U.S.C. 103 (A) OVER BEYDA ET AL.
IN VIEW OF HAMILTON IN FURTHER VIEW OF THEMIER ET AL.**

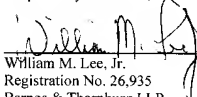
Claim 56

Claim 56 is ultimately dependent on claim 51, and as such it benefits from patentability for the same reasons as the base claim from which it depends. Accordingly, it is submitted that Themier et al. fails to make obvious the subject matter of claim 56.

Therefore, it is submitted that the Examiner's rejections are clearly in error, and should be reversed.

September 12, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Lee, Jr.", is written over a horizontal line.

William M. Lee, Jr.
Registration No. 26,935
Barnes & Thornburg LLP
P.O. Box 2786
Chicago, Illinois 60690-2786
(312) 214-4800
Fax (312) 759-5646

CLAIMS APPENDIX

1-34 (cancelled)

35. A method of conferencing comprising the steps of:

- forming a main conference between a plurality of users,
- presenting at least one of said users in the main conference with a graphical list of the main conference participants,
- providing said user with an interface to interact with said graphical list of main conference participants, such that said user has an option to request a subconference with a subset of other users by selecting subconference participants from said graphical list using said interface,
- forming a subconference between said user and the subset of other users,
- maintaining private from the main conference at least some communication between the subset of users in the subconference during the subsistence of the subconference, and
- presenting to said user a graphical list of the subset of users in the subconference, when the subconference is in progress.

36. A method of conferencing according to claim 35, wherein those users in the subconference are entirely isolated from participation in the main conference during the subsistence of the subconference.

37. A method of conferencing according to claim 35, wherein the users in the subconference are prevented from contributing to the main conference but are able to monitor communications in the main conference during the subsistence of the subconference.

38. A method of conferencing according to claim 35, wherein the main conference utilises a plurality of media types, users in the subconference utilise one or more of said media types, and users in the subconference can actively or passively participate in the main conference in at least one media type during the subsistence of the subconference.

39. A method of conferencing according to claim 35, wherein the users utilise a plurality of media types in the main conference and/or subconference, said media types being selected from the group consisting of video, audio and data signals.

40. A method of conferencing according to claim 39, wherein the media types utilised in the main conference include video and audio, and wherein the subconference utilises audio signals.

41. A method of conferencing according to claim 39, wherein the media types utilised in the main conference include audio and data, and wherein the subconference utilises data signals.

42. A method of conferencing according to claim 35, wherein the users in the main conference are presented with said subconference list during the subsistence of the subconference.

43. A method of conferencing according to claim 35, wherein the users in the main conference are not presented with said subconference list during the subsistence of the subconference.

44. A method of conferencing according to claim 35, wherein the main conference is formed on a conference bridge to which each of the main conference users is connected.

45. A method according of conferencing to claim 44, wherein the subconference users remain connected to the bridge and the subconference is formed by creating a second conference on the bridge simultaneously with the main conference.

46. A method of conferencing according to claim 35, wherein the user(s) to whom the request is addressed have the option of accepting or refusing to join the subconference, and wherein such acceptance or rejection determines whether or not they remain as part of said subset.

47. A method of conferencing according to claim 35, wherein each user in the subconference is provided with the option to leave the subconference at any time during the subsistence of the subconference.
48. A method of conferencing according to claim 47, wherein users opting to leave the subconference are automatically returned to full participation in the main conference.
49. A method of conferencing according to claim 35, wherein users in the subconference are presented with the option of requesting one or more of the other subconference users to join a nested subconference within said initial subconference.
50. A method according to claim 35, wherein users in the subconference are presented with the option of requesting one or more of the other subconference users to leave said initial subconference and form a new subconference without rejoining the main conference.
51. A conferencing server comprising:
- i) a main conference list memory unit for maintaining a main list of the users connected to the server as part of a conference,
 - ii) a main conference list manager for forwarding said main list of users to an endpoint of at least one of said users whereby said endpoint can graphically display said main list to said user,
 - iii) main signal processing means for receiving incoming signals from said users, processing said signals and generating outgoing signals to said users,
 - iv) a main control unit for controlling said main conference list memory unit and said main signal processing means,
 - v) a subconference list memory unit for maintaining a subconference list of a subset of said users, said subset being defined in response to subconference requests made by said user by interaction with said main list at said endpoint,
 - vi) a subconference list manager for forwarding said subconference list of users to said endpoint of said at least one user whereby said endpoint can graphically display said subconference list to said user,

vii) subconference signal processing means for generating outgoing signals to said subset of users, wherein the signals generated by said subconference signal processing means include subconference signals which are not included in the signals generated by said main signal processing means and sent to users outside said subset, and

viii) a subconference control unit for controlling said subconference list memory unit and said subconference signal processing means.

52. A conferencing server according to claim 51 wherein the main conference list memory unit and the subconference list memory unit are logical areas within a single memory unit.

53. A conferencing server according to claim 51 wherein the functions of the main signal processing means and of the subconference signal processing means are carried out by the same signal processing unit.

54. A conferencing server according to claim 53, wherein said signal processing unit is adapted to combine signals of different media types.

55. A conferencing server according to claim 54, wherein said media types are selected from video, audio and data.

56. A conferencing server according to claim 55, wherein said signal processing unit is dynamically programmable to generate outgoing signal streams containing an arbitrary combination of media types selected from the incoming signals from the users.

57. A conferencing server according to claim 51, wherein said main control unit includes means for forwarding said list of users in the conference to each of the users.

58. A conferencing server according to claim 51, wherein said subconference control unit includes means for forwarding said list of said subset of users to said subset of users, and optionally to all users on the list maintained in the main conference list memory unit.

59. A conferencing system comprising a conferencing server according to claim 51, a call server connected to the conferencing server, and means for connecting users to the call server.

60. A computer program product comprising software recorded on a computer-readable medium for managing a conference, said software comprising instructions which when executed in a conferencing system are effective to cause the system to:

- form a main conference between a plurality of users,
- present at least one of said users in the main conference with a graphical list of the main conference participants,
- provide said user with an interface to interact with said graphical list of main conference participants, such that said user has an option to request a subconference with a subset of other users by selecting subconference participants from said graphical list using said interface,
- form a subconference between said user and the subset of other users,
- maintain private from the main conference at least some communication between the subset of users in the subconference during the subsistence of the subconference, and
- present to said user a graphical list of the subset of users in the subconference, when the subconference is in progress.

61. A computer program product according to claim 60, wherein said main conference is conducted in a plurality of media and wherein said means for providing a participant with an option to request a subconference includes means for enabling said participant to select one or more of said media for use during said subconference.

62. A computer program product comprising software recorded on a computer-readable medium for enabling a user at a multimedia terminal to participate in a conference over a network, said software comprising instructions which when executed in said terminal are effective to cause the terminal to:

- present to said user a graphical list of participants in the conference,
- provide said user with an interface to interact with said graphical list of conference participants, such that said user has an option to request a subconference

with a subset of other users by selecting subconference participants from said graphical list using said interface,

forward said request over the network from said terminal, and

on initiation of a subconference with one or more of said subset of users, present to said user a graphical list of the subset of users in the subconference, when the subconference is in progress.

63. A computer program product according to claim 62, further comprising means for enabling the user to select one or more media types for use during said subconference.

64. A computer program product according to claim 62, when embodied in a multimedia terminal for use in a conference.

65. A computer program product according to claim 62, when embodied in the form of a telephone handset having a graphical display for presentation of said graphical list and input means for operation of said interface.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None